

WHAT WE CLAIM IS:

1. A method for killing or controlling weeds, insects, fungi, the release of spores, bacteria or sterilising a substrate, including exposing the weeds, fungi, insects or insect
5 eggs, spores or substrate to heat and immediately thereafter or before or simultaneously applying a liquid substance including a herbicide and/or pesticide and/or fungicide, and/or bacteriacide, and/or fish or animal-derived substance to the weeds, fungi, insects, spores or substrate.
- 10 2. A method according to claim 1 including exposing the weeds, fungi, insects or eggs, spores or substrate to heat by blowing hot air onto the weeds, fungi, insects, spores, or substrate.
- 15 3. A method according to claim 1 including exposing the weeds, fungi, insects or eggs, spores or substrate to heat by blowing hot air containing water, water vapour, or steam onto the weeds, fungi, insects, spores, or substrate.
- 20 4. A method according to claim 1 including exposing the weeds, fungi, insects or eggs, spores or substrate to heat by exposing the weeds, fungi, insects, spores, or substrate to steam.
5. A method according to claim 1 including exposing the weeds, fungi, insects or eggs, spores or substrate to a radiant heat source.
- 25 6. A method according to claim 1 including exposing the weeds, fungi, insects or eggs, spores or substrate to heat above 100°C.
7. A method according to claim 1 including exposing the weeds, fungi, insects or eggs, spores or substrate to heat above 450°C.
- 30 8. A method according to claim 1 wherein the liquid substance includes a herbicide.

9. A method according to claim 8 wherein the herbicide includes a terpene-based component.
10. A method according to claim 9 wherein the liquid substance includes a fatty acid-based component.
11. A method according to claim 10 wherein the fatty acid-based component is a fatty acid soap.
12. A method according to claim 11 wherein the liquid substance also includes a foaming agent.
13. A method according to claim 1 wherein the liquid substance includes a fungicide.
14. A method according to claim 1 wherein the liquid substance includes an oil.
15. A method according to claim 14 wherein the liquid substance includes a fish oil.
16. A method according to claim 1 including applying the liquid substance to ground in which weeds are growing or to a substrate on which fungi or spores or insects or insect eggs exist at a rate of between 5 and 50 litres per hectare of surface area.
17. A method according to claim 1 including applying the liquid substance to ground in which weeds are growing or to a substrate on which fungi or spores or insects or insect eggs exist at a rate of between 10 and 30 litres per hectare of surface area.
18. A method according to claim 1 wherein the liquid substance wets weeds, fungal material, or a substrate sufficiently to prevent ignition thereof.
19. A method according to claim 1 including heating the weeds, fungi, spores or substrate and immediately thereafter applying the liquid substance.

20. A method according to claim 1 including heating the weeds, fungi, spores or substrate while simultaneously exposing same to a spray, mist, or vapour of the liquid substance.
- 5 21. A method according to claim 1 including controlling the application of the liquid substance separately from control of application of the heat, via a manual user-operable control.
22. A method according to claim 1 including applying the heat and liquid substance
10 from a hand held appliance carried by a user.
23. A method according to claim 1 including applying the heat and liquid substance from an applicator carried or towed by a motorised vehicle.
- 15 24. A method for killing or controlling weeds including heating the weeds and immediately thereafter or before on simultaneously applying a liquid herbicide and/or an animal or fish-derived substance onto the weeds.
25. A method according to claim 24 including exposing the weeds to heat by blowing
20 hot air onto the weeds.
26. A method according to claim 24 including exposing the weeds to heat by blowing hot air containing water, water vapour or steam onto the weeds.
- 25 27. A method according to claim 24 including exposing the weeds to heat by exposing the weeds to steam.
28. A method according to claim 24 including exposing the weeds to a radiant heat source.
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29. A method according to claim 24 including exposing the weeds, fungi, insects, spores or substrate to heat above 100°C.

30. A method according to claim 24 including exposing the weeds, fungi, insects, spores or substrate to heat above 450°C.
- 5 31. A method according to claim 24 wherein the herbicide includes a terpene-based component.
32. A method according to claim 24 wherein the herbicide includes a fatty acid-based component.
- 10 33. A method according to claim 32 wherein the fatty acid-based component is a fatty acid soap.
34. A method according to claim 33 wherein the liquid substance also includes a foaming agent.
- 15 35. A method for killing or controlling weeds including heating the weeds and immediately thereafter or before or simultaneously applying an oil onto the weeds.
- 20 36. A method according to claim 35 wherein the oil is a fish oil.
37. A method for killing or controlling fungi or the release of spores, including blowing onto a substrate on which the fungi or spores exist hot air, hot air containing water, water vapour or steam, and immediately thereafter or before or simultaneously applying a liquid substance including a fungicide and/or an animal or fish-derived substance onto the substrate.
- 25 38. A method according to claim 37 wherein the substrate is leaf litter on the ground in an orchard on which exists spores of *Ventura inaequalis*.
- 30 39. A method according to claim 37 wherein the substrate is leaf litter on the ground in an vineyard on which exists spores of *Botrytis cinerea*.

40. A method for killing or controlling insect pests or the eggs thereof including heating a substrate on which the insects or eggs thereof exist and immediately thereafter or before or simultaneously applying a herbicide, pesticide, or an oil to the substrate.

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41. A method according to claim 40 wherein the insect pest is grape mealybug (*Pseudococcus maritimus*).

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